

REMARKS

Claims 1, 3-6 and 10-21 and 24-46 are currently pending, of which claims 1, 10, 32 and 38 are independent. No new matter has been added.

I. Rejection of Claims 1 and 3-6 under 35 U.S.C. § 103(a)

Claims 1 and 3-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Number 5,926,775 to Brumley et al. (hereafter “Brumley”) in view of U.S. Patent Publication Number 2001/0047385 to Tuatini (hereafter “Tuatini”). Applicants respectfully traverse the above 35 U.S.C. § 103(a) rejection of claims 1 and 3-6 for at least the reasons set forth below.

A. Claim 1

Independent claim 1 recites:

“In an electronic device a method for accessing an image acquisition device associated with the electronic device independent of an interface protocol of the image acquisition device, the method comprising the steps of,
receiving a request to access the image acquisition device, the request specifying a format for a response from the image acquisition device;
establishing a communication channel with the image acquisition device independent of the interface protocol of the image acquisition device; and
accessing a feature of the image acquisition device using the communication channel to receive the response in the specified format.” [emphasis added]

Applicants respectfully submit that Brumley and Tuatini, alone or in any reasonable combination, fail to disclose or suggest at least the following feature of independent claim 1: “establishing a communication channel with the image acquisition device independent of the interface protocol of the image acquisition device.”

The Examiner cites Brumley as disclosing or suggesting the above feature of claim 1 (Office Action, paragraph 3):

“As to claim 1, Brumley teaches an electronic device (the computer 102 running an operating system... provide field electrical, col 5, ln 33-38), an image acquisition device, a DAQ device, col 5, ln 33-38), the electrical device independent of an interface protocol of the image acquisition device (*the generic functionality which is generic to or independent of a number of DAQ devices or boards, i.e., is independent of a family of devices, col 9, ln 34-38/ plurality of mini-driver primitives each perform a portion of controlling the DAQ device, i.e., each of the plurality of mini-driver primitives perform operations to control specific resources of the DAQ device, col 3, ln 65-67 to col 4, ln 1-3/ The interpreter operates to configure device family independent or hardware independent features, for each device, col 4, ln 20-25*), a request from the user (calls from the DAQ user application, col 3, ln 7-9), receiving a request from a requester to access the image acquisition device, col 3, ln 7-9/ col 27, ln 20-25), establishing a communication channel with the image acquisition device (col 12, ln 5-15/ Fig. 7), accessing a feature of the image acquisition device using the communication channel (col 6, ln 1-5)....” [emphasis added]

Applicants disagree with the Examiner’s statement because Brumley, contrary to the Examiner’s interpretation, does not disclose or suggest the above feature. For the sake of completeness, the sections of Brumley cited by the Examiner are addressed separately below.

Brumley, at column 3, line 65 – column 4, line 3, discusses mini-driver primitives which are provided in the data acquisition (DAQ) device-level software. The mini-driver primitives each perform operations to control specific resources of the DAQ device. Brumley states “each of the mini-driver primitives is **specific to the DAQ device**” (Brumley, column 3, lines 34-35). The mini-driver primitives are not described as being independent of an interface protocol of the DAQ device. More specifically, the mini-driver primitives are not described as establishing a communication channel with the DAQ device **independent of the interface protocol of the image acquisition device**, as required by claim 1.

Brumley, at column 4, lines 20-25 and column 9, lines 34-38, discusses interpreters which are also provided in the data acquisition (DAQ) device-level software. The interpreters operate to configure device family independent or hardware independent features for each device. The interpreters can also operate to convert from a legacy user interface to the low level

programming interface provided by the respective mini-driver primitives. Although the interpreters can configure some device-independent features, Brumley does not disclose or suggest that the interpreters can establish a communication channel with the DAQ device **independent of the interface protocol of the image acquisition device**, as required by claim 1.

In fact, Brumley, at column 8, lines 45-47, discusses that the interpreters can be used by multiple device classes only if there is similar functionality between the device classes. Examples of common functionality achieved by the interpreters include: buffering, performing parameter validation on incoming function parameters, etc (Brumley, column 8, lines 25-40). However, Brumley does not disclose or suggest that a communication channel provided by the interpreters is not **independent of the interface protocol of the image acquisition device**, as required by claim 1.

In addition, Brumley discusses a DAQ device object. As noted in Brumley, “the DAQ device object corresponds to the DAQ device” (Brumley, column 3, lines 45-46). The DAQ device object creates the interpreters and mini-driver primitives (Brumley, column 8, lines 16-24). The DAQ device object also receives calls from the DAQ user application and forwards these calls to the appropriate interpreters (Brumley, column 8, lines 16-24). Brumley describes the DAQ device object as being specific to a DAQ device installed in the DAQ system (Brumley, column 7, lines 59-67 and column 3, lines 49-50). Brumley describes the DAQ device object as being based on the type of DAQ device, and does not disclose or suggest that a communication channel provided by the DAQ device object is **independent of the interface protocol of the image acquisition device**, as required by claim 1.

As such, Brumley does not disclose or suggest “establishing a communication channel with the image acquisition device independent of the interface protocol of the image acquisition device,” as recited in claim 1. The disclosure of Tuatini does not supplement Brumley in such a way as to cure the failure of Brumley to disclose or suggest these features of claim 1.

Tuatini relates to an application architecture that allows applications to inter-communicate (Tuatini, abstract). The application framework receives requests for services from clients, identifies application action handler components that can service the requests and application view handler components that can format the responses, invokes the identified action

handlers to service the requests, and invokes identified view handlers to format and send the responses to the clients (Tuatini, abstract). When an application component needs to access functionality provided by remote shared services, the component uses a local messaging service to communicate with the remote service (Tuatini, abstract). Tuatini does not disclose or suggest “establishing a communication channel with the image acquisition device independent of the interface protocol of the image acquisition device,” as recited in claim 1.

Therefore, Brumley and Tuatini, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claim 1. Accordingly, Applicants respectfully request reconsideration and allowance of claim 1.

B. Claims 3-6

Claims 3-6 depend from independent claim 1 and, as such, incorporate all of the elements of claim 1. Accordingly claims 3-6 are allowable for at least the reasons set forth above with respect to claim 1. Applicants respectfully request reconsideration and allowance of claims 3-6.

II. Rejection of Claims 10-14, 19-25 and 30 under 35 U.S.C. § 103(a)

Claims 10-14, 19-25 and 30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brumley in view of U.S. Patent Publication Number 2004/0088349 to Beck (hereafter “Beck”). Applicants respectfully traverse the above 35 U.S.C. § 103(a) rejection of claims 10-14, 19-25 and 30 for at least the reasons set forth below.

A. Claim 10

Independent claim 10 recites:

“A method performed in an electronic device for communicating with a selected image acquisition device associated with the electronic device, the method comprising the steps of,

establishing a first communication link between a user of the electronic device and an image acquisition engine, the image acquisition engine generating a response in a user-specified format; and

establishing a second communication link between the image acquisition engine and an interface of the selected image

acquisition device using a communication channel operating independent of an interface protocol of the selected image acquisition device to allow the user to communicate with the selected image acquisition device.” [emphasis added]

Applicants respectfully submit that Brumley and Beck, alone or in any reasonable combination, fail to disclose or suggest at least the following feature of independent claim 10: “establishing a second communication link between the image acquisition engine and an interface of the selected image acquisition device using a communication channel operating independent of an interface protocol of the selected image acquisition device to allow the user to communicate with the selected image acquisition device.”

Brumley does not disclose or suggest using a communication channel operating independent of an interface protocol of the selected image acquisition device to allow the user to communicate with the selected image acquisition device, as required by claim 10. The teachings of Beck do not supplement Brumley in such a way as to cure the failure of Brumley to disclose or suggest these features of claim 10.

Beck relates to an Internet Service Provider (ISP) which intercepts HTTP requests from an end-user's browser (Beck, abstract). In response to receiving a request from the end-user that includes a token, the Web server generates a responsive message to the ISP that includes that same temporary user ID token, and which requests the ISP to perform a user-specific action (Beck, abstract). In response to that message, the ISP identifies the user from the token, performs the requested user-specific action and provides the Web server with information relating to the result of the requested action (Beck, abstract). Beck does not disclose or suggest “establishing a second communication link between the image acquisition engine and an interface of the selected image acquisition device using a communication channel operating independent of an interface protocol of the selected image acquisition device to allow the user to communicate with the selected image acquisition device,” as recited in claim 10.

Therefore, Brumley and Beck, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claim 10. Accordingly, Applicants respectfully request reconsideration and allowance of claim 10.

B. Claims 11-14, 19-25 and 30

Claims 11-14, 19-25 and 30 depend from independent claim 10 and, as such, incorporate all of the elements of claim 10. Accordingly, claims 11-14, 19-25 and 30 are allowable for at least the reasons set forth above with respect to claim 10. Applicants respectfully request reconsideration and allowance of claims 11-14, 19-25 and 30.

III. Rejection of Claims 15, 16, 18 and 26-29 under 35 U.S.C. § 103(a)

Claims 15, 16, 18 and 26-29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brumley in view of Beck and further in view of U.S. Patent Number 6,614,916 to MacDonald (hereafter "MacDonald"). Applicants respectfully traverse the above 35 U.S.C. § 103(a) rejection of claims 15, 16, 18 and 26-29 for at least the reasons set forth below.

Claims 15, 16, 18 and 26-29 depend from and include the features of claim 10.

As previously discussed in connection with the 35 U.S.C. § 103(a) rejection of claim 10, Brumley and Beck, alone or in any reasonable combination, do not disclose or suggest "establishing a second communication link between the image acquisition engine and an interface of the selected image acquisition device using a communication channel operating independent of an interface protocol of the selected image acquisition device to allow the user to communicate with the selected image acquisition device." Since Brumley and Beck do not disclose or suggest this feature of claim 10, they cannot disclose or suggest this feature for claims depending from claim 10, namely claims 15, 16, 18 and 26-29. The disclosure of MacDonald does not supplement Brumley and Beck in such a way as to cure the failure of Brumley and Beck to disclose or suggest the above features of independent claim 10 or dependent claims 15, 16, 18 and 26-29.

MacDonald relates to a machine vision system and associated triggering method which uses images acquired by a video camera to trigger the video camera (MacDonald, abstract). An image feature of interest is acquired from a triggered video camera (MacDonald, abstract). The video camera continuously acquires images of an object using a portion of the total field of view of the video camera (MacDonald, abstract). The acquired images are compared to a signature

image (MacDonald, abstract). In response to determining that one or more of the acquired images matches the signature, the video camera is triggered to acquire a full-frame image which contains the feature of interest (MacDonald, abstract). MacDonald does not disclose or suggest “establishing a second communication link between the image acquisition engine and an interface of the selected image acquisition device using a communication channel operating independent of an interface protocol of the selected image acquisition device to allow the user to communicate with the selected image acquisition device,” as recited in claims 10, 15, 16, 18 and 26-29. Therefore, MacDonald does not cure the shortcomings of Brumley and Beck with respect to independent claim 10 or dependent claims 15, 16, 18 and 26-29.

Therefore, Brumley, Beck and MacDonald, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claims 15, 16, 18 and 26-29. Accordingly, Applicants respectfully request reconsideration and allowance of claims 15, 16, 18 and 26-29.

IV. Rejection of Claims 17 and 31 under 35 U.S.C. § 103(a)

Claims 17 and 31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brumley in view of Beck and further in view of U.S. Patent Number 5,201,027 to Casini (hereafter “Casini”). Applicants respectfully traverse the above 35 U.S.C. § 103(a) rejection of claims 17 and 31 for at least the reasons set forth below.

Claims 17 and 31 depend from and include the features of independent claim 10.

As previously discussed in connection with the 35 U.S.C. §103(a) rejection of independent claim 10, Brumley and Beck, alone or in any reasonable combination, do not disclose or suggest “establishing a second communication link between the image acquisition engine and an interface of the selected image acquisition device using a communication channel operating independent of an interface protocol of the selected image acquisition device to allow the user to communicate with the selected image acquisition device.” Therefore Brumley and Beck cannot disclose or suggest this feature of dependent claims 10, 17 and 31. The disclosure of Casini does not supplement Brumley and Beck in such a way as to cure the failure of Brumley and Beck to disclose or suggest the above features of claims 10, 17 and 31.

Casini relates to imprinting screen-process printing stencils (Casini, abstract). An electronic device is provided for the color acquisition of the image of a color design so as to obtain information in a digital format stored on a magnetic support (Casini, abstract). A computer is provided for the management of the data stored on the magnetic support, e.g. selecting the fundamental colors, changing or superimposing them, with simultaneous on-screen display or printout on paper (Casini, abstract). Casini does not disclose or suggest “establishing a second communication link between the image acquisition engine and an interface of the selected image acquisition device using a communication channel operating independent of an interface protocol of the selected image acquisition device to allow the user to communicate with the selected image acquisition device,” as recited in claims 10, 17 and 31.

Therefore, Brumley, Beck and Casini, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claims 17 and 31. Accordingly, Applicants respectfully request reconsideration and allowance of claims 17 and 31.

V. Rejection of Claims 32-42 under 35 U.S.C. § 103(a)

Claims 32-42 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brumley in view of U.S. Patent Number 5,926,775 to Trsar (hereafter “Trsar”). Applicants respectfully traverse the above 35 U.S.C. § 103(a) rejection of claims 32-42 for at least the reasons set forth below.

A. Claim 32

Independent claim 32 recites:

“A device readable medium holding device executable instructions for performing a method in an electronic device for accessing an image acquisition device associated with the electronic device independent of an interface protocol of the image acquisition device, the method comprising the steps of,
 providing information on available types of triggers supported by the image acquisition device;
 accepting a request to access the image acquisition device;
 creating a communication channel with the image acquisition device independent of the interface protocol of the image acquisition device; and

accessing a feature of the image acquisition device using the communication channel.” [emphasis added]

Applicants respectfully submit that Brumley and Trsar, alone or in any reasonable combination, fail to disclose or suggest at least the following feature of independent claim 32: “creating a communication channel with the image acquisition device independent of the interface protocol of the image acquisition device.”

Brumley does not disclose or suggest creating a communication channel with the image acquisition device independent of the interface protocol of the image acquisition device, as required by claim 32. The teachings of Trsar do not supplement Brumley in such a way as to cure the failure of Brumley to disclose or suggest the above feature of claim 32.

Trsar relates to an engine analyzer with a digital oscilloscope display (Trsar, abstract). A processor controls the acquisition and display of a high-voltage secondary ignition signal waveform with the use of only a single high-voltage reactive pickup probe (Trsar, abstract). The waveform is displayed with a fixed-time sweep and either auto or signal triggering (Trsar, abstract). Trsar also does not disclose or suggest “creating a communication channel with the image acquisition device independent of the interface protocol of the image acquisition device,” as required by claim 32.

Therefore, Brumley and Trsar, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claim 32. Accordingly, Applicants respectfully request reconsideration and allowance of claim 32.

B. Claims 33-37

Claims 33-37 depend from independent claim 32 and, as such, incorporate all of the elements of claim 32. Accordingly claims 33-37 are allowable for at least the reasons set forth above with respect to claim 32. Applicants respectfully request reconsideration and allowance of claims 33-37.

C. Claim 38

Independent claim 38 recites:

“A program holding product having instructions executable by an electronic device which, when executed by a processor of the electronic device allows a user of the electronic device to communicate with a selected image acquisition device associated with the electronic device by performing the steps of,

interfacing a user of the electronic device with an image acquisition engine;

linking the image acquisition engine and an interface of the selected image acquisition device using a communication channel operating independent of an interface protocol of the selected image acquisition device allowing the user to communicate with the selected image acquisition device; and

providing information to the user on available types of triggers supported by the selected image acquisition device.” [emphasis added]

Applicants respectfully submit that Brumley and Trsar, alone or in any reasonable combination, fail to disclose or suggest at least the following feature of independent claim 38: “linking the image acquisition engine and an interface of the selected image acquisition device using a communication channel operating independent of an interface protocol of the selected image acquisition device allowing the user to communicate with the selected image acquisition device.” A combination of Brumley and Trsar does not disclose or suggest using a communication channel operating independent of an interface protocol of the selected image acquisition device allowing the user to communicate with the selected image acquisition device. Therefore, Brumley and Trsar, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claim 38. Accordingly, Applicants respectfully request reconsideration and allowance of claim 38.

D. Claims 39-42

Claims 39-42 depend from independent claim 38 and, as such, incorporate all of the elements of claim 38. Accordingly claims 39-42 are allowable for at least the reasons set forth

above with respect to claim 38. Applicants respectfully request reconsideration and allowance of claims 39-42.

VI. Rejection of Claims 43, 44 and 46 under 35 U.S.C. § 103(a)

Claims 43, 44 and 46 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brumley in view of Trsar, as applied to claim 32, and further in view of U.S. Patent Number 6,614,916 to MacDonald (hereafter "MacDonald"). Applicants respectfully traverse the above 35 U.S.C. § 103(a) rejection of claims 43, 44 and 46 for at least the reasons set forth below.

Claims 43, 44 and 46 depend from and include the features of claim 38.

Brumley and Trsar, alone or in any reasonable combination, do not disclose or suggest "linking the image acquisition engine and an interface of the selected image acquisition device using a communication channel operating independent of an interface protocol of the selected image acquisition device allowing the user to communicate with the selected image acquisition device," as recited in claims 38, 43, 44 and 46. The teachings of MacDonald do not supplement Brumley and Trsar in such a way as to cure the failure of Brumley and Trsar to disclose or suggest the above features of claims 38, 43, 44 and 46.

MacDonald relates to a machine vision system and associated triggering method which uses images acquired by a video camera to trigger the video camera (MacDonald, abstract). MacDonald does not disclose or suggest "linking the image acquisition engine and an interface of the selected image acquisition device using a communication channel operating independent of an interface protocol of the selected image acquisition device allowing the user to communicate with the selected image acquisition device," as recited in claims 38, 43, 44 and 46.

Therefore, Brumley, Trsar and MacDonald, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claims 43, 44 and 46. Accordingly, Applicants respectfully request reconsideration and allowance of claims 43, 44 and 46.

VII. Rejection of Claim 45 under 35 U.S.C. § 103(a)

Claim 45 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Brumley in view of Trsar, as applied to claim 32, and further in view of Casini. Applicants respectfully traverse the above 35 U.S.C. § 103(a) rejection of claim 45 for at least the reasons set forth below.

Claim 45 depends from and includes the features of claim 38.

Brumley and Trsar, alone or in any reasonable combination, do not disclose or suggest “linking the image acquisition engine and an interface of the selected image acquisition device using a communication channel operating independent of an interface protocol of the selected image acquisition device allowing the user to communicate with the selected image acquisition device,” as recited in claims 38 and 45. The teachings of Casini do not supplement Brumley and Trsar in such a way as to cure the failure of Brumley and Trsar to disclose or suggest the above features of claims 38 and 45.

Casini relates to imprinting screen-process printing stencils (Casini, abstract). Casini does not disclose or suggest “linking the image acquisition engine and an interface of the selected image acquisition device using a communication channel operating independent of an interface protocol of the selected image acquisition device allowing the user to communicate with the selected image acquisition device,” as recited in claims 38 and 45.

Therefore, Brumley, Trsar and Casini, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claim 45. Accordingly, Applicants respectfully request reconsideration and allowance of claim 45.

CONCLUSION

In light of the above amendments and arguments, Applicants respectfully submit that all of the pending claims are in condition for allowance. Should the Examiner feel that a teleconference would expedite the prosecution of this application, the Examiner is urged to contact the Applicants' attorney at (617) 227-7400.

Please charge any shortage or credit any overpayment of fees to our Deposit Account No. 12-0080, under Order No. MWS-034. In the event that a petition for an extension of time is required to be submitted herewith, and the requisite petition does not accompany this response, the undersigned hereby petitions under 37 C.F.R. §1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized to be charged to the aforementioned Deposit Account.

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